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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,670	05/23/2001	Terry Edward Ford	22623-00005	3508

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EXAMINER

VO, HUYEN X

ART UNIT PAPER NUMBER

2655

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

09/863,670

Examiner

Huyen X. Vo

Applicant(s)

FORD ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/23/2001.
2. ☒ The allowed claim(s) is/are 1,2,4-13,15-24,26-31 and 33-45.
3. ☒ The drawings filed on 23 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

**W. R. YOUNG  
PRIMARY EXAMINER**

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**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stanley Gradisar on 3/8/2005.

Claims 3, 14, 25, and 32 are cancelled.

Claims 4-6, 15-16, 26-28, and 33-35 have been amended as follow:

Claim 4 depends on claim 1.

Claim 5 depends on claim 1.

Claim 6 depends on claim 1.

Claim 15 depends on claim 12.

Claim 16 depends on claim 12.

Claim 26 depends on claim 23.

Claim 27 depends on claim 23.

Claim 28 depends on claim 23.

Claim 33 depends on claim 30.

Claim 34 depends on claim 30.

Claim 35 depends on claim 30.

Claim 1 has been amended as follows:

1. A method for automatically processing and managing spatial asset information in a repository, the method comprising:

defining instances of primary observation types and associations between each of the specific instances;

identifying reference networks and geographic information system asset layers in the repository;

configuring the repository based on said instances definitions and said associations;

collecting field data;

converting said collected field data to specific observations;

correlating said specific observations to the appropriate said reference network and said geographic information system asset layers; and

updating said appropriate geographic information system asset layers in the repository;

wherein said collecting of field data step further comprises:

capturing free speech stating verbal observations containing voice data;

capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal observations to create a raw verbal observation; and

time-stamping said captured location data.

Claim 12 has been amended as follows:

12. An apparatus for automatically processing and managing spatial asset information in a repository, the apparatus comprising:

defining means for defining instances of primary observation types and associations between each of the specific instances;

identifying means for identifying reference networks and geographic information system asset layers in the repository;

configuring means for configuring the repository based on said instances definitions and said associations;

data collection means for collecting field data;

converting means for converting said collected field data to specific observations;

correlating means for correlating said specific observations to the appropriate said reference network and said geographic information system asset layers; and

updating means for updating said appropriate geographic information system asset layers in the repository;

wherein said data collection means captures free speech stating verbal observations containing voice data and also captures location data contemporaneously with each of said verbal observations, and wherein the apparatus includes time-stamping means for time-stamping each of said captured verbal observations to create a raw verbal observation and for time-stamping said captured location data.

Claim 23 has been amended as follow:

23. Computer-readable media tangibly embodying a program of instructions executable by a computer to perform a method for automatically processing and managing spatial asset information in a repository, the method comprising:

defining instances of primary observation types and associations between each of the specific instances;

identifying reference networks and geographic information system asset layers in the repository;

configuring the repository based on said instances definitions and said associations;

collecting field data;

converting said collected field data to specific observations;

correlating said specific observations to the appropriate said reference network and said geographic information system asset layers;

updating said appropriate geographic information system asset layers in the repository;

wherein said collecting of field data step further comprises:

capturing free speech stating verbal observations containing voice data;

capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal observations to create a raw verbal observation; and

time-stamping said captured location data.

Claim 30 has been amended as follow:

30. A computer programmed to execute a process for automatically processing and managing spatial asset information in a repository, the process comprising:

defining instances of primary observation types and associations between each of the specific instances;

identifying reference networks and geographic information system asset layers in the repository;

configuring the repository based on said instances definitions and said associations;

collecting field data;

converting said collected field data to specific observations;

correlating said specific observations to the appropriate said reference network and said geographic information system asset layers;

updating said appropriate geographic information system asset layers in the repository;

capturing free speech stating verbal observations containing voice data;

capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal observations to create a raw verbal observation; and

time-stamping said captured location data.

Claim 37 has been amended as follow:

37. An apparatus for automatically processing and managing spatial asset

information, the apparatus comprising:

a processing computer for receiving a plurality of field data that has been collected; and

a data repository connectable to said processing computer for receiving processing results of said processing computer, wherein said data repository further comprises,

a plurality of reference networks;

a geographic information system having a plurality asset layers;

a plurality of pre-defined instances of primary observation types; and

a plurality pre-defined associations between each of said plurality of pre-defined instances of primary observation types, wherein said data repository is configured based upon said plurality of pre-defined instances of primary observation types and said plurality of pre-defined associations;

wherein said processing computer,

converts each of said plurality of field data into an appropriate one of said primary observation types;



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correlates each of said converted primary observation types of each of said plurality of field data to an appropriate one of said plurality of reference networks and an appropriate one of said plurality of asset layers; and

updates said appropriate one of said plurality of asset layers with each of said converted primary observation types of each of said plurality of field data; and

wherein said collecting of field data further comprises:

capturing free speech stating verbal observations containing voice data;

capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal observations to create a raw verbal observation; and

time-stamping said captured location data.

### ***Allowable Subject Matter***

2. Claims 1-2, 4-13, 15-24, 26-31, 33-45 are allowed over prior art of record.

The following is an examiner's statement of reasons for allowance: Poelstra (US 4994971) teaches a system for setting up and keeping up-to-date datafiles for road traffic. The system includes a plurality of cameras position on an automobile, each of said cameras records video images of a particular section of the road. Said recorded video images of road are time-stamped, and the location of the traveling vehicle is recorded for later use road survey analyses. Buck et al. (US 5719771) teach a system

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for mapping occurrences of conditions in a transportation route. The system monitors conditions of the traveling route and collects data based on conditions and GPS information. The information is used to warn/alert later drivers of rough road conditions. Both Poelstra and Buck et al. still fail to specifically disclose the step of time-stamping raw verbal observations of the road's condition and time-stamping the captured location associated with the road conditions. Furthermore, it would have not been obvious to one of ordinary skill in the art at the time of invention to modify Poelstra and/or Buck et al. to obtain the claimed invention. Therefore, claims 1-2, 4-13, 15-24, 26-31, 33-45 are allowed over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Vo whose telephone number is 703-305-8665. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

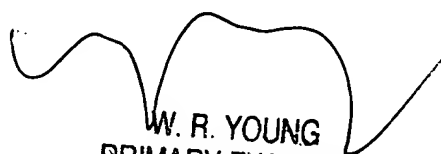
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Huyen X. Vo

March 29, 2005

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W. R. YOUNG  
PRIMARY EXAMINER